



SEQUENCE LISTING

<110> Blackshear, Perry J.
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Lai, Wi S.

<120> TTP-RELATED ZINC FINGER DOMAINS AND
METHODS OF USE

<130> 14014.0349U2

<140> 10/049,586

<141> 2002-02-12

<150> PCT/US00/22199

<151> 2000-08-14

<150> 60/148,810

<151> 1999-08-13

<160> 48

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 326

<212> PRT

<213> Homo sapiens

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Gly	Ser	Ser	Gly	Pro	Trp	Ser	Leu	Ser	Pro	Ser	Asp	Ser	Ser	Pro	Ser
		35					40					45			
Gly	Val	Thr	Ser	Arg	Leu	Pro	Gly	Arg	Ser	Thr	Ser	Leu	Val	Glu	Gly
	50				55					60					
Arg	Ser	Cys	Gly	Trp	Val	Pro	Pro	Pro	Pro	Gly	Phe	Ala	Pro	Leu	Ala
65					70					75				80	
Pro	Arg	Leu	Gly	Pro	Glu	Leu	Ser	Pro	Ser	Pro	Thr	Ser	Pro	Thr	Ala
				85					90					95	
Thr	Ser	Thr	Thr	Pro	Ser	Arg	Tyr	Lys	Thr	Glu	Leu	Cys	Arg	Thr	Phe
			100					105					110		
Ser	Glu	Ser	Gly	Arg	Cys	Arg	Tyr	Gly	Ala	Lys	Cys	Gln	Phe	Ala	His
		115					120					125			
Gly	Leu	Gly	Glu	Leu	Arg	Gln	Ala	Asn	Arg	His	Pro	Lys	Tyr	Lys	Thr
	130				135						140				
Glu	Leu	Cys	His	Lys	Phe	Tyr	Leu	Gln	Gly	Arg	Cys	Pro	Tyr	Gly	Ser
145				150						155				160	
Arg	Cys	His	Phe	Ile	His	Asn	Pro	Ser	Glu	Asp	Leu	Ala	Ala	Pro	Gly
			165						170					175	
His	Pro	Pro	Val	Leu	Arg	Gln	Ser	Ile	Ser	Phe	Ser	Gly	Leu	Pro	Ser
			180					185					190		
Gly	Arg	Arg	Thr	Ser	Pro	Pro	Pro	Pro	Gly	Leu	Ala	Gly	Pro	Ser	Leu
		195				200						205			
Ser	Ser	Ser	Ser	Phe	Ser	Pro	Ser	Ser	Ser	Pro	Pro	Pro	Pro	Gly	Asp
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Leu	Pro	Leu	Ser	Pro	Ser	Ala	Phe	Ser	Ala	Ala	Pro	Gly	Thr	Pro	Leu
225					230					235					240

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			20					25					30		
Gly	Cys	Leu	Leu	Asp	Arg	Lys	Ala	Val	Gly	Thr	Pro	Ala	Gly	Gly	Gly
		35					40					45			
Phe	Pro	Arg	Arg	His	Ser	Val	Thr	Leu	Pro	Ser	Ser	Lys	Phe	Arg	Gln
	50					55					60				
Asn	Gln	Leu	Leu	Ser	Ser	Leu	Lys	Gly	Glu	Pro	Ala	Pro	Ala	Leu	Ser
65					70					75					80
Ser	Arg	Asp	Ser	Arg	Phe	Arg	Asp	Arg	Ser	Phe	Ser	Glu	Gly	Gly	Glu
				85				90						95	
Arg	Leu	Leu	Pro	Thr	Gln	Lys	Gln	Pro	Gly	Gly	Gly	Gln	Val	Asn	Ser
			100					105					110		
Ser	Arg	Tyr	Lys	Thr	Glu	Leu	Cys	Arg	Pro	Phe	Glu	Glu	Asn	Gly	Ala
		115					120					125			
Cys	Lys	Tyr	Gly	Asp	Lys	Cys	Gln	Phe	Ala	His	Gly	Ile	His	Glu	Leu
	130					135					140				
Arg	Ser	Leu	Thr	Arg	His	Pro	Lys	Tyr	Lys	Thr	Glu	Leu	Cys	Arg	Thr
145					150					155					160
Phe	His	Thr	Ile	Gly	Phe	Cys	Pro	Tyr	Gly	Pro	Arg	Cys	His	Phe	Ile
				165					170					175	
His	Asn	Ala	Glu	Glu	Arg	Arg	Ala	Leu	Ala	Gly	Ala	Arg	Asp	Leu	Ser
			180					185					190		
Ala	Asp	Arg	Pro	Arg	Leu	Gln	His	Ser	Phe	Ser	Phe	Ala	Gly	Phe	Pro
		195					200					205			
Ser	Ala	Ala	Ala	Thr	Ala	Ala	Ala	Thr	Gly	Leu	Leu	Asp	Ser	Pro	Thr
	210					215					220				
Ser	Ile	Thr	Pro	Pro	Pro	Ile	Leu	Ser	Ala	Asp	Asp	Leu	Leu	Gly	Ser
225					230					235					240
Pro	Thr	Leu	Pro	Asp	Gly	Thr	Asn	Asn	Pro	Phe	Ala	Phe	Ser	Ser	Gln
				245					250					255	
Glu	Leu	Ala	Ser	Leu	Phe	Ala	Pro	Ser	Met	Gly	Leu	Pro	Gly	Gly	Gly
			260					265					270		
Ser	Pro	Thr	Thr	Phe	Leu	Phe	Arg	Pro	Met	Ser	Glu	Ser	Pro	His	Met
		275					280					285			
Phe	Asp	Ser	Pro	Pro	Ser	Pro	Gln	Asp	Ser	Leu	Ser	Asp	Gln	Glu	Gly
	290					295					300				
Tyr	Leu	Ser	Ser	Ser	Ser	Ser	Ser	His	Ser	Gly	Ser	Asp	Ser	Pro	Thr
305					310					315					320
Leu	Asp	Asn	Ser	Arg	Arg	Leu	Pro	Ile	Phe	Ser	Arg	Leu	Ser	Ile	Ser
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Asp Asp

<210> 3

<211> 492

<212> PRT

<213> Homo sapiens

<400> 3

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Met Ser Thr Thr Leu Leu Ser Ala Phe Tyr Asp Val Asp Phe Leu Cys
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      20          25          30
Lys Lys Ala Val Gly Thr Pro Val Ala Ala Ala Pro Ser Ser Gly Phe
      35          40          45
Ala Pro Gly Phe Leu Arg Arg His Ser Ala Ser Asn Leu His Ala Leu
      50          55          60
Ala His Pro Ala Pro Ser Pro Gly Ser Cys Ser Pro Lys Phe Pro Gly
65          70          75          80
Ala Ala Asn Gly Ser Ser Cys Gly Ser Ala Ala Ala Gly Gly Pro Thr
      85          90          95
Ser Tyr Gly Thr Leu Lys Glu Pro Ser Gly Gly Gly Gly Thr Ala Leu
      100          105          110
Leu Asn Lys Glu Asn Lys Phe Arg Asp Arg Ser Phe Ser Glu Asn Gly
      115          120          125
Asp Arg Ser Gln His Leu Leu His Leu Gln Gln Gln Gln Lys Gly Gly
      130          135          140
Gly Gly Ser Gln Ile Asn Ser Thr Arg Tyr Lys Thr Glu Leu Cys Arg
145          150          155          160
Pro Phe Glu Glu Ser Gly Thr Cys Lys Tyr Gly Glu Lys Cys Gln Phe
      165          170          175
Ala His Gly Phe His Glu Leu Arg Ser Leu Thr Arg His Pro Lys Tyr
      180          185          190
Lys Thr Glu Leu Cys Arg Thr Phe His Thr Ile Gly Phe Cys Pro Tyr
      195          200          205
Gly Pro Arg Cys His Phe Ile His Asn Ala Asp Glu Arg Arg Pro Ala
      210          215          220
Pro Ser Gly Gly Ala Ser Gly Asp Leu Arg Ala Phe Gly Thr Arg Asp
225          230          235          240
Ala Leu His Leu Gly Phe Pro Arg Glu Pro Arg Pro Lys Leu His His
      245          250          255
Ser Leu Ser Phe Ser Gly Phe Pro Ser Gly His His Gln Pro Pro Gly
      260          265          270
Gly Leu Glu Ser Pro Leu Leu Leu Asp Ser Pro Thr Ser Arg Thr Pro
      275          280          285
Pro Pro Pro Ser Cys Ser Ser Ala Ser Ser Cys Ser Ser Ser Ala Ser
      290          295          300
Ser Cys Ser Ser Ala Ser Ala Ala Ser Thr Pro Ser Gly Thr Pro Thr
305          310          315          320
Cys Cys Ala Ser Ala Ala Ala Leu Arg Leu Leu Tyr Gly Thr Gly
      325          330          335
Gly Ala Glu Asp Leu Leu Ala Pro Gly Ala Pro Cys Ala Ala Cys Ser
      340          345          350
Ser Ala Ser Cys Ala Asn Asn Ala Phe Ala Phe Gly Pro Glu Leu Ser
      355          360          365
Ser Leu Ile Thr Pro Leu Ala Ile Gln Thr His Asn Phe Ala Ala Val
      370          375          380
Ala Ala Ala Ala Tyr Tyr Arg Ser Gln Gln Gln Gln Gln Gln Gly
385          390          395          400
Leu Ala Pro Pro Ala Gln Pro Pro Ala Pro Pro Ser Ala Thr Leu Pro
      405          410          415

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Ala Gly Ala Ala Ala Pro Pro Ser Pro Pro Phe Ser Phe Gln Leu Pro
 420 425 430
 Arg Arg Leu Ser Asp Ser Pro Val Phe Asp Ala Pro Pro Ser Pro Pro
 435 440 445
 Asp Ser Leu Ser Asp Arg Asp Ser Tyr Leu Ser Gly Ser Leu Ser Ser
 450 455 460
 Gly Ser Leu Ser Gly Ser Glu Ser Pro Ser Leu Asp Pro Gly Arg Arg
 465 470 475 480
 Leu Pro Ile Phe Ser Arg Leu Ser Ile Ser Asp Asp
 485 490

<210> 4

<211> 276

<212> PRT

<213> *Xenopus laevis*

<400> 4

Met Glu Ile Ser Asn Asp Ser Leu Asp Leu Phe Ser Ser Phe Phe Pro
 1 5 10 15
 Gln Leu Ser Pro Pro Ala Asp Pro Glu Thr Pro Leu Leu Pro Ser Phe
 20 25 30
 Ser Ala Pro Pro Lys His Leu Ser Ser Ser Leu Arg Tyr Lys Thr
 35 40 45
 Glu Leu Cys Ser Arg Tyr Ala Glu Ser Gly Phe Cys Ala Tyr Arg Asn
 50 55 60
 Arg Cys Gln Phe Ala His Gly Leu Ser Glu Leu Arg Pro Pro Val Gln
 65 70 75 80
 His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Ser Phe His Val Leu Gly
 85 90 95
 Thr Cys Asn Tyr Gly Leu Arg Cys Leu Phe Ile His Ser Pro Gln Glu
 100 105 110
 Arg Arg Glu Pro Pro Val Leu Pro Asp Asn Leu Ser Leu Pro Pro Arg
 115 120 125
 Arg Tyr Gly Gly Pro Tyr Arg Glu Arg Cys Arg Leu Trp Ser Ala Pro
 130 135 140
 Gly Gly Cys Pro Tyr Gly Ala Arg Cys His Phe Gln His Pro Lys Ser
 145 150 155 160
 Ala Arg Glu Thr Cys Arg His Phe Ala Ala Leu Gly Asp Cys Pro Tyr
 165 170 175
 Gly Ala Cys Cys His Phe Ser His Ser Pro Pro Leu Asp Arg Trp Gly
 180 185 190
 Ser Gly Thr Lys Asn Ser Ser Gly Ser Leu Ser Pro Ser Asp Pro Asp
 195 200 205
 Ser Asp Pro Asp Thr Pro Val Leu Ser Glu Ser Pro Ala Asn Asn Ala
 210 215 220
 Phe Ser Phe Ser Ser Leu Leu Leu Pro Leu Ala Leu Arg Leu Gln Ile
 225 230 235 240
 Leu Gly Asp Asp Asp Leu Pro Thr Ala Ser Asp Pro Leu Pro Gly Asp
 245 250 255
 Asp Thr Asp Leu Leu Pro Gly Asp Glu Ile Ala Gln Gly Leu Leu
 260 265 270
 Ser Val Leu Gly
 275

<210> 5

<211> 327

<212> PRT

<213> *Cyprinus carpio*

<400> 5

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Met Phe Glu Thr Ser Thr Asp Asn Leu Phe Leu Phe Pro Thr Glu Gly
 1          5          10          15
Leu Asn Glu Ala Phe Phe Pro Glu Glu Gly Leu Ala Ser Gly Ser Leu
          20          25          30
Ser Leu Ala Lys Ala Leu Leu Pro Leu Val Glu Ser Pro Ser Pro Pro
          35          40          45
Met Thr Pro Trp Leu Cys Ser Thr Arg Tyr Lys Thr Glu Leu Cys Ser
          50          55          60
Arg Tyr Ala Glu Thr Gly Thr Cys Lys Tyr Ala Glu Arg Cys Gln Phe
65          70          75          80
Ala His Gly Leu His Asp Leu His Val Pro Ser Arg His Pro Lys Tyr
          85          90          95
Lys Thr Glu Leu Cys Arg Thr Tyr His Thr Ala Gly Tyr Cys Val Tyr
          100          105          110
Gly Thr Arg Cys Leu Phe Val His Asn Leu Lys Glu Gln Arg Pro Val
          115          120          125
Arg Gln Arg Cys Arg Asn Val Pro Cys Arg Thr Phe Arg Ala Phe Gly
          130          135          140
Val Cys Pro Phe Gly Thr Arg Cys His Phe Leu His Val Glu Gly Gly
          145          150          155          160
Ser Glu Ser Asp Gly Gly Glu Glu Glu Gln Thr Cys Gln Pro Met Ser
          165          170          175
Gln Ser Gln Glu Trp Lys Pro Arg Gly Ala Leu Cys Arg Thr Phe Ser
          180          185          190
Ala Phe Gly Phe Cys Leu Tyr Gly Thr Arg Cys Arg Phe Gln His Gly
          195          200          205
Leu Pro Asn Ser Ile Lys Gly Val Asn Ser Thr His Thr Ser Trp Pro
          210          215          220
His Gln Met Thr Asn Arg Gly Ser Leu Ser Pro Val Ser Asp Ala Cys
          225          230          235          240
Ser Ser Gln Ser Pro Pro Ser Ser Val Pro Ser Val Cys Val Gly Phe
          245          250          255
Ala Val Tyr Pro Glu Gly Ser Gly Pro Val Thr Pro Pro Ser Val Glu
          260          265          270
Ala Val Ala Asn Asn Ala Phe Thr Phe Ser Ser Gln His Leu Asn Asp
          275          280          285
Leu Leu Leu Pro Leu Ala Leu Arg Leu Gln Gln Leu Glu Asn Val Thr
          290          295          300
Asn Ala Gly Pro Gln Asp Ala Val Asp Lys Pro Leu Leu Leu Ser Leu
          305          310          315          320
Trp Gln Asp Asp Pro Arg Ser
          325

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<210> 6

<211> 319

<212> PRT

<213> Danio rerio

<400> 6

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Met Phe Glu Thr Ser Gln Asp Asp Leu Phe Leu Phe Pro Thr Glu Gly
 1          5          10          15
Leu Asn Glu Ala Phe Phe Pro Glu Glu Gly Leu Gly Gly Gly Gly Gly
          20          25          30
Gly Leu Ser Leu Ala Glu Ala Leu Leu Pro Leu Val Glu Ser Pro Ser
          35          40          45
Pro Pro Met Thr Pro Trp Leu Cys Ser Thr Arg Tyr Lys Thr Glu Leu
          50          55          60
Cys Ser Arg Tyr Ala Glu Thr Gly Thr Cys Lys Tyr Ala Glu Arg Cys
65          70          75          80

```

Gln	Phe	Ala	His	Gly	Leu	His	Asp	Leu	His	Val	Pro	Ser	Arg	His	Pro
				85					90					95	
Lys	Tyr	Lys	Thr	Glu	Leu	Cys	Arg	Thr	Tyr	His	Thr	Ala	Gly	Tyr	Cys
			100					105					110		
Val	Tyr	Gly	Thr	Arg	Cys	Leu	Phe	Val	His	Asn	Leu	Lys	Glu	Gln	Arg
		115					120					125			
Pro	Ile	Arg	Pro	Arg	Arg	Arg	Asn	Val	Pro	Cys	Arg	Thr	Phe	Arg	Ala
	130					135					140				
Phe	Gly	Val	Cys	Pro	Phe	Gly	Asn	Arg	Cys	His	Phe	Leu	His	Val	Glu
145					150					155					160
Gly	Gly	Ser	Glu	Ser	Asp	Gly	Ala	Glu	Glu	Glu	Gln	Thr	Trp	Gln	Pro
			165					170						175	
Pro	Ser	Gln	Ser	Gln	Glu	Trp	Lys	Pro	Arg	Gly	Ala	Leu	Cys	Arg	Thr
			180					185					190		
Phe	Ser	Ala	Phe	Gly	Phe	Cys	Leu	Tyr	Gly	Thr	Arg	Cys	Arg	Phe	Gln
		195					200					205			
His	Gly	Leu	Pro	Asn	Thr	Ile	Lys	Gly	His	Asn	Ala	Asn	His	Thr	Ser
	210					215					220				
Trp	Pro	Gln	Gln	Met	Thr	Asn	Gly	Gly	Ser	Ile	Ser	Pro	Ile	Ser	Asp
225					230					235					240
Thr	Cys	Thr	Ser	Pro	Ser	Pro	Pro	Ser	Ser	Ser	Pro	Thr	Ser	Ala	Leu
			245						250					255	
Pro	Ser	Pro	Val	Tyr	Pro	Asp	Ser	Ser	Gly	Pro	Ile	Thr	Pro	Pro	Ser
			260					265					270		
Val	Glu	Ala	Val	Ala	Asn	Asn	Ala	Phe	Thr	Phe	Ser	Ser	Gln	His	Leu
		275					280					285			
Asn	Asp	Leu	Leu	Leu	Pro	Leu	Ala	Leu	Arg	Leu	Gln	Gln	Leu	Glu	Lys
	290					295					300				
Ala	Ala	Ser	Ala	Gly	Pro	Gln	Asp	Val	Leu	Asp	Lys	Pro	Leu	Leu	
305					310					315					

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<210> 7
<211> 64
<212> PRT
<213> Rattus norvegicus
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<400> 7															
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1				5					10					15	
Lys	Tyr	Gly	Asp	Lys	Cys	Gln	Phe	Ala	His	Gly	Ile	His	Glu	Leu	Arg
			20					25					30		
Ser	Leu	Thr	Arg	His	Pro	Lys	Tyr	Lys	Thr	Glu	Leu	Cys	Arg	Thr	Phe
		35					40					45			
His	Thr	Ile	Gly	Phe	Cys	Pro	Tyr	Gly	Pro	Arg	Cys	His	Phe	Ile	His
	50					55					60				

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<210> 8
<211> 64
<212> PRT
<213> Homo sapiens
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<400> 8															
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1				5					10					15	
Lys	Tyr	Gly	Asp	Lys	Cys	Gln	Phe	Ala	His	Gly	Ile	His	Glu	Leu	Arg
			20					25					30		
Ser	Leu	Thr	Arg	His	Pro	Lys	Tyr	Lys	Thr	Glu	Leu	Cys	Arg	Thr	Phe
		35					40					45			
His	Thr	Ile	Gly	Phe	Cys	Pro	Tyr	Gly	Pro	Arg	Cys	His	Phe	Ile	His
	50					55					60				

<210> 9
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 <212> PRT
 <213> Mus musculus

<400> 9
 Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Asn Gly Ala Cys
 1 5 10 15
 Lys Tyr Gly Asp Lys Cys Gln Phe Ala His Gly Ile His Glu Leu Arg
 20 25 30
 Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
 35 40 45
 His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
 50 55 60

<210> 10
 <211> 64
 <212> PRT
 <213> Xenopus laevis

<400> 10
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 1 5 10 15
 Lys Tyr Gly Asp Lys Cys Gln Phe Ala His Gly Ile His Glu Leu Arg
 20 25 30
 Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
 35 40 45
 His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
 50 55 60

<210> 11
 <211> 64
 <212> PRT
 <213> Homo sapiens

<400> 11
 Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Ser Gly Thr Cys
 1 5 10 15
 Lys Tyr Gly Glu Lys Cys Gln Phe Ala His Gly Phe His Glu Leu Arg
 20 25 30
 Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
 35 40 45
 His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
 50 55 60

<210> 12
 <211> 64
 <212> PRT
 <213> Mus musculus

<400> 12
 Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Ser Gly Thr Cys
 1 5 10 15
 Lys Tyr Gly Glu Lys Cys Gln Phe Ala His Gly Phe His Glu Leu Arg
 20 25 30
 Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
 35 40 45
 His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
 50 55 60

<210> 13
 <211> 64
 <212> PRT
 <213> *Xenopus laevis*

<400> 13
 Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Asn Gly Ala Cys
 1 5 10 15
 Lys Tyr Gly Glu Lys Cys Gln Phe Ala His Gly Phe His Glu Leu Arg
 20 25 30
 Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
 35 40 45
 His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
 50 55 60

<210> 14
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 <212> PRT
 <213> *Xenopus laevis*

<400> 14
 Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Ser Gly Ala Cys
 1 5 10 15
 Lys Tyr Gly Glu Lys Cys Gln Phe Ala His Gly Phe His Glu Leu Arg
 20 25 30
 Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
 35 40 45
 His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
 50 55 60

<210> 15
 <211> 64
 <212> PRT
 <213> *Homo sapiens*

<400> 15
 Arg Tyr Lys Thr Glu Leu Cys Arg Thr Phe Ser Glu Ser Gly Arg Cys
 1 5 10 15
 Arg Tyr Gly Ala Lys Cys Gln Phe Ala His Gly Leu Gly Glu Leu Arg
 20 25 30
 Gln Ala Asn Arg His Pro Lys Tyr Lys Thr Glu Leu Cys His Lys Phe
 35 40 45
 Tyr Leu Gln Gly Arg Cys Pro Tyr Gly Ser Arg Cys His Phe Ile His
 50 55 60

<210> 16
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 <212> PRT
 <213> *Bos taurus*

<400> 16
 Arg Tyr Lys Thr Glu Leu Cys Arg Thr Phe Ser Glu Ser Gly Arg Cys
 1 5 10 15
 Arg Tyr Gly Ala Lys Cys Gln Phe Ala His Gly Leu Gly Glu Leu Arg
 20 25 30
 Gln Ala Asn Arg His Pro Lys Tyr Lys Thr Glu Leu Cys His Lys Phe
 35 40 45
 Tyr Leu Gln Gly Arg Cys Pro Tyr Gly Ser Arg Cys His Phe Ile His
 50 55 60

<210> 17
 <211> 64
 <212> PRT
 <213> Mus musculus

<400> 17
 Arg Tyr Lys Thr Glu Leu Cys Arg Thr Tyr Ser Glu Ser Gly Arg Cys
 1 5 10 15
 Arg Tyr Gly Ala Lys Cys Gln Phe Ala His Gly Leu Gly Glu Leu Arg
 20 25 30
 Gln Ala Asn Arg His Pro Lys Tyr Lys Thr Glu Leu Cys His Lys Phe
 35 40 45
 Tyr Leu Gln Gly Arg Cys Pro Tyr Gly Ser Arg Cys His Phe Ile His
 50 55 60

<210> 18
 <211> 64
 <212> PRT
 <213> Rattus norvegicus

<400> 18
 Arg Tyr Lys Thr Glu Leu Cys Arg Thr Tyr Ser Glu Ser Gly Arg Cys
 1 5 10 15
 Arg Tyr Gly Ala Lys Cys Gln Phe Ala His Gly Pro Gly Glu Leu Arg
 20 25 30
 Gln Ala Asn Arg His Pro Lys Tyr Lys Thr Glu Leu Cys His Lys Phe
 35 40 45
 Tyr Leu Gln Gly Arg Cys Pro Tyr Gly Ser Arg Cys His Phe Ile His
 50 55 60

<210> 19
 <211> 64
 <212> PRT
 <213> Xenopus laevis

<400> 19
 Arg Tyr Lys Thr Glu Leu Cys Arg Thr Phe Ser Glu Thr Gly Thr Cys
 1 5 10 15
 Lys Tyr Gly Ala Lys Cys Gln Phe Ala His Gly Lys Ile Glu Leu Arg
 20 25 30
 Glu Pro Asn Arg His Pro Lys Tyr Lys Thr Glu Leu Cys His Lys Phe
 35 40 45
 Tyr Leu Tyr Gly Glu Cys Pro Tyr Gly Ser Arg Cys Asn Phe Ile His
 50 55 60

<210> 20
 <211> 64
 <212> PRT
 <213> Cyprinus carpio

<400> 20
 Arg Tyr Lys Thr Glu Leu Cys Ser Arg Tyr Ala Glu Thr Gly Thr Cys
 1 5 10 15
 Lys Tyr Ala Glu Arg Cys Gln Phe Ala His Gly Leu His Asp Leu His
 20 25 30
 Val Pro Ser Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Tyr
 35 40 45
 His Thr Ala Gly Tyr Cys Val Tyr Gly Thr Arg Cys Leu Phe Val His
 50 55 60

<210> 21
 <211> 64
 <212> PRT
 <213> Danio rerio

<400> 21
 Arg Tyr Lys Thr Glu Leu Cys Ser Arg Tyr Ala Glu Thr Gly Thr Cys
 1 5 10 15
 Lys Tyr Ala Glu Arg Cys Gln Phe Ala His Gly Leu His Asp Leu His
 20 25 30
 Val Pro Ser Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Tyr
 35 40 45
 His Asn Ala Gly Tyr Cys Val Tyr Val Thr Arg Cys Leu Phe Val His
 50 55 60

<210> 22
 <211> 64
 <212> PRT
 <213> Xenopus laevis

<400> 22
 Arg Tyr Lys Thr Glu Leu Cys Ser Arg Tyr Ala Glu Ser Gly Phe Cys
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 Ala Tyr Arg Asn Arg Cys Gln Phe Ala His Gly Leu Ser Glu Leu Arg
 20 25 30
 Pro Pro Val Gln His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Ser Phe
 35 40 45
 His Val Leu Gly Thr Cys Asn Tyr Gly Leu Arg Cys Leu Phe Ile His
 50 55 60

<210> 23
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 <212> PRT
 <213> Homo sapiens

<400> 23
 Thr Ser Thr Thr Pro Ser Arg Tyr Lys Thr Glu Leu Cys Arg Thr Phe
 1 5 10 15
 Ser Glu Ser Gly Arg Cys Arg Tyr Gly Ala Lys Cys Gln Phe Ala His
 20 25 30
 Gly Leu Gly Glu Leu Arg Gln Ala Asn Arg His Pro Lys Tyr Lys Thr
 35 40 45
 Glu Leu Cys His Lys Phe Tyr Leu Gln Gly Arg Cys Pro Tyr Gly Ser
 50 55 60
 Arg Cys His Phe Ile His Asn Pro Ser Glu Asp Leu Ala
 65 70 75

<210> 24
 <211> 241
 <212> RNA
 <213> Mus musculus

<400> 24
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 gccucugucu cagaaugagg cuggauaaga ucucaggccu uccuaccuuc agaccuuucc 120
 agacucuucc cugaggugca augcacagcc uuccucacag agccagcccc ccucuauuuu 180
 uauuugcacu uauuauuuau uauuuauuuu uuauuuauuu auuugcuuau gaaugauuu 240
 a 241

<210> 25
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 <213> Mus musculus

 <400> 25
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 aauguauuuu 70

 <210> 26
 <211> 6
 <212> PRT
 <213> Homo sapiens

 <400> 26
 Arg Tyr Lys Thr Glu Leu
 1 5

 <210> 27
 <211> 6
 <212> PRT
 <213> Homo sapiens

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 <223> Xaa can be Arg or Lys

 <400> 27
 Xaa Tyr Lys Thr Glu Leu
 1 5

 <210> 28
 <211> 27
 <212> DNA
 <213> Mus Musculus

 <400> 28
 gtcgacactc agagagaaag gctaagg 27

 <210> 29
 <211> 23
 <212> DNA
 <213> Mus musculus

 <400> 29
 cattcaaagg ggatatcagt cag 23

 <210> 30
 <211> 27
 <212> DNA
 <213> Homo sapiens

 <400> 30
 gtggcttcta gatgcatggg tggcatc 27

 <210> 31
 <211> 29
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<213> Homo sapiens

<400> 31
gaaggacacc tctagagaca aaatgatgc 29

<210> 32
<211> 23
<212> DNA
<213> Mus musculus

<400> 32
ctttccgaat tcactggagc etc 23

<210> 33
<211> 29
<212> DNA
<213> Mus musculus

<400> 33
tagatctaga agcgatcttt atttctctc 29

<210> 34
<211> 20
<212> DNA
<213> Mus musculus

<400> 34
gataagatct caggccttcc 20

<210> 35
<211> 27
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<400> 35
gccttctaga taaatacatt cataagc 27

<210> 36
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<400> 36
gtggcttcta gatgcatggg tggcatc 27

<210> 37
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<400> 37
gaaggacacc tctagagaca aaatgatgc 29

<210> 38
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<213> Mus musculus

<400> 38
ctgatctaga agtgcaaata taaatagagg 30

<210> 39
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<400> 39
 gactggatcc tctatttata tttgcac

27

<210> 40
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 <212> PRT
 <213> Homo sapiens

<400> 40
 Lys Tyr Lys Thr Glu Leu
 1 5

<210> 41
 <211> 24
 <212> RNA
 <213> Mus musculus

<400> 41
 uuauuuauuu auuauuuauu uauu

24

<210> 42
 <211> 7
 <212> PRT
 <213> Homo sapiens

<400> 42
 Arg Tyr Lys Thr Glu Leu Cys
 1 5

<210> 43
 <211> 6
 <212> PRT
 <213> Homo sapiens

<400> 43
 Cys Gln Phe Ala His Gly
 1 5

<210> 44
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 44
 His Pro Lys Tyr Lys Thr Glu Leu Cys
 1 5

<210> 45
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 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence; note = synthetic construct

<400> 45

uuguuuguuu guuguuuguu uuuu

24

<210> 46

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; note =
synthetic construct

<220>

<221> VARIANT

<222> 2-9, 11, 13, 16, 19, 21

<223> Xaa = any amino acid

<220>

<221> VARIANT

<222> 17

<223> Xaa can be Arg or Lys

<400> 46

Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Gly	Xaa	Cys	Xaa	Tyr	Gly	Xaa
1				5					10					15	
Xaa	Cys	Xaa	Phe	Xaa	His										
			20												

<210> 47

<211> 20

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence; note =
synthetic construct

<220>

<221> VARIANT

<222> 2-9, 11-15, 17-19

<223> Xaa = any amino acid

<400> 47

Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Cys
1					5					10					15	
Xaa	Xaa	Xaa	His													
			20													

<210> 48

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; note =
synthetic construct

<400> 48

Cys	Cys	Cys	His
1			